DOCUMENT RESUME

ED 170 945 EA 011 728

AUTHOR Deal, Terrence E.; Rosaler, Jean A.
TITLE An Organizational Perspective on Planning and Problem Solving in Schools.
INSTITUTION Association of California School Administrators.
PUB DATE [77]
NOTE 58p.; A Project Leadership Monograph
AVAILABLE FROM Association of California School Administrators, 1575 Old Bayshore Highway, Burlingame, California 94010 ($4.50)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Administrator Role; Educational Administration; *Educational Planning; Elementary Secondary Education; Group Norms; Objectives; Organization; Organizational Climate; *Organizational Development; *Organizational Theories; *Problem Solving

ABSTRACT

A brief introduction to organizational theory and organizational development for educational administrators is provided in this document. The first section contrasts individualistic and organizational approaches to educational problems. It is intended to give administrators two distinct perspectives for viewing day-to-day events. The second section develops the organizational perspective in more detail by identifying the critical elements of an organization and describing their intricate and dynamic relationships. This section is intended to give administrators new insights for surviving in and changing complex organizations. The third section distills from the organizational perspective some principles for administering schools, relates the perspective to organizational development (OD), and applies the perspective to planning and problem-solving. The final section relates the organizational perspective to the administrator's role. The purpose of the last two sections is to enable administrators to see both potential and limitations in specific OD techniques, gain some new ideas about putting an organizational perspective to work in planning and problem-solving, and choose the administrative roles they wish to play in their school or district. (Author/JM)

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ORGANIZATIONAL DEVELOPMENT

An Organizational Perspective on Planning and Problem Solving in Schools

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PROJECT LEADERSHIP

This Monograph differs somewhat from the other materials Project Leadership has sponsored in the past. It emphasizes theory or "how to think about" organizing and administering schools more than specific suggestions for "how to do it." In the past administrators have been trained to look only at the individual, to concentrate on the psychological and humanistic areas which would produce change in individuals and thus achieve reform. This Monograph is a part of the growing field of organizational development which contains a wide variety of approaches. The approach described here stresses the point that administrators need to change both their perspective and their basic reference point from the individual to the structure. It places a far greater emphasis on the organizational aspect of a district or school and suggests this produces reform in a better way. The ideas contained in this Monograph have been received enthusiastically by many school administrators throughout the state. I think after reading this you will agree that these ideas have immense potential for the future. I want to express a very special thanks to Terry Deal and Jean Rosaler of the Stanford Center for Research and Development in Teaching at the Stanford University School of Education. Without their cooperation and hard work this Monograph and the presentors guide on organizational development would not have been possible.

Larry Ruttan
Project Leadership Director

Acknowledgments

We wish to thank several individuals for their contributions to this monograph: W. R. Scott for help in improving the theoretical soundness of the perspective; Larry Ruttan for help in tailoring the perspective to an administrative audience; Eliot Levinson and Susan Roper for help in organizing and synthesizing earlier drafts; Bruce Harlow for help in making the document readable; and Shirley Weitz for her patience in typing countless versions of the monograph. While each made valuable contributions, they are not to be held responsible for the final document--only where it is better because of their advice.

We would like also to recognize the indirect contributions of the entire staff of the Environment for Teaching program at the Stanford Center for Research and Development in Teaching. Conversations with Elizabeth G. Cohen, Sanford M. Dornbusch, John W. Meyer, and Kathleen M. Huguenin have been a particularly important source of ideas, concepts, and research.

Finally, the courage of Robert N. Bush, Director of the Stanford Center for Research and Development in Teaching, funds from the National Institute of Education, and the energy of ACSA's Project Leadership have provided various types of essential support.

Terrence E. Deal
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I. INTRODUCTION

An elementary school principal recently remarked, "In my school, everyone is working beyond their capacity. In the evening, we all leave exhausted. But we also go home frustrated because our individual efforts do not seem to have any real payoff. Teachers, aides, parent volunteers, specialists, and administrators all seem to be on a frantic treadmill. None of us can work any harder, and yet we all are moving in different directions and never seem to get anywhere. Our energy runs down the drain."

Undoubtedly, other principals and district superintendents would echo this concern. Schools are organizations in which the work of many individuals must be united. Yet efforts to improve schools concentrate mainly on improving individual performances. Inservice activities help teachers develop new approaches to reading, equip counselors and specialists with new diagnostic techniques, and assist administrators in fostering positive "climates" or increasing participation in decision making. Few attempts are made, however, to improve the avenues through which individual efforts are coordinated or channeled. How, for example, might these new approaches to reading, new diagnostic techniques, and new management patterns fit together or support one another? The changes may be complementary. But more often than not they work against each other and teachers, administrators, and counselors unknowingly find themselves on opposing tracks.

The relationships between various responsibilities within an organization are too important to be left to chance. Designing a work setting where specialized contributions can converge on desired outcomes and where each role meshes productively with others requires conscious planning. As much time should be devoted to improving a work setting as to upgrading the individuals who work within the organization. Only then can we eliminate, or at least slow down, the frustrating treadmill which saps the energies and impedes the efforts of well-trained professionals who work in poorly designed organizations.

This monograph emphasizes the organizational aspects of schools. It has two main purposes: (1) to condense relevant theory into an organizational perspective which will give educational administrators a way to "think about" schools and districts as dynamic organizations intimately connected with their environments, and (2) to suggest briefly some applications of this organizational perspective and the implications it has for an administrator.

The discussion will emphasize concepts and theories. The central premise is that organizational theory is a useful and necessary administrative tool. Theory by itself won't help improve school organizations. But in the hands of action-oriented administrators, theory can provide general directions and identify important pitfalls.

Administrators expecting to obtain from the monograph immediate answers or specific suggestions on "how to" organize their schools or districts will be disappointed. Our purpose here is to provide a general framework. As seasoned administrators integrate their experience and existing techniques with this framework, we would anticipate that a number of creative approaches to organization, planning, and problem solving will result. We'll suggest some possibilities. But forging specific approaches and techniques from the organizational perspective is a responsibility that we believe belongs with administrators, who can skillfully adapt general concepts to fit their unique situation. In short, the monograph is intended to walk a tightrope woven from a maxim of Immanuel Kant's: "experience without theory is blind, but theory without experience is mere intellectual play."

Precariously balancing between "blindness" and "play," the monograph has four main sections. The first contrasts individualistic and organizational approaches to educational problems. After reading this section, administrators will have two distinct perspectives or "lenses" for viewing day-to-day events. A second section develops the organizational set of "spectacles" in more detail by identifying the critical elements of an organization and describing their intricate and dynamic relationships. Administrators who plow through this section will emerge with new insights for surviving in and changing complex organizations. The third section distills from the organizational perspective some principles for administering schools, relates the perspective to Organizational Development (OD), and applies the perspective to planning and problem-solving. The final section relates the organizational perspective to the administrator's role. After reading the last two sections, administrators should be able to see both potential and limitations in specific OD techniques, have some new ideas for putting an organizational perspective to work in planning and problem solving, and be equipped to choose the administrative roles they wish to play in their school or district.

Together, the three central sections of the monograph provide only a brief introduction to organizational theory and the field of OD. The authors will be more than satisfied if this introduction encourages administrators to delve more deeply into a growing area of knowledge that has immense potential for improving the productivity and quality of life in educational organizations.

II. INDIVIDUALISTIC AND ORGANIZATIONAL RESPONSES TO EDUCATIONAL PROBLEMS

Districts and schools are presently buffeted by external forces which make traditional, time-tested approaches obsolete. But creating new approaches makes districts and schools more complex, uncertain, and unstable, thereby causing confusion, conflict, and frustration. External forces have created a series of problems for many schools and districts. The interplay between external and internal pressures raises some dilemmas about where to begin in developing solutions.

The first dilemma is the age-old issue of whether schools should endeavor to change or adapt to the society. Should administrators concentrate on (1) reducing external pressures, or (2) try to do something about the internal problems that are created by responding to new social demands? The two are obviously interconnected, but should changing the society be the main agenda? Or should administrators concentrate their attention on adapting and dealing with internal issues?

Most external pressures on schools are deeply imbedded in the cultural and economic fabric of the society--the larger system of which schools are only a small part. For example, schools are being asked (in many states, mandated) to assume more responsibilities--both for the education of the young and for correcting social and economic imbalances. At the same time, economic recession and decreasing enrollments have reduced the money schools receive. To some extent, macro-level problems can be affected by broad sweeping political or social reforms. But social and economic inequalities, the influence of the courts on educational policy, and economic recession are not issues that school principals and superintendents can dramatically affect. Through professional associations and political affiliations educators can conceivably have an impact on such external pressures and issues. But this influence usually does not travel far beyond the local level. The difficulties in modifying the larger society suggest that the identity of schools as either potent agents of change or as adaptive institutions lies closer to the latter. Administrators therefore are handed the responsibility of helping schools adapt and respond to social demands and change.

Thus the second dilemma is created. How can schools respond and adapt without being overwhelmed by internal problems created by new patterns of instruction, new roles for teachers, parents, students and administrators, new relationships with the community, and new approaches to management? Here the key concern is the selection of a perspective for attacking these problems--one that does not rule out the important influence of the environment. The dilemma is created because administrators can choose either (1) to approach problems from an individual-

istic perspective, or (2) to deal with internal problems from an organizational perspective.

The individualistic perspective emphasizes training and renewing teachers, administrators, parents and anyone else whose responsibilities relate to the learning process. This perspective emphasizes that retraining individuals is the key to developing the ability of schools to adapt to new responsibilities and tasks. The organizational perspective takes a more structural position. It emphasizes that entirely new organizational patterns will be required if schools are to adapt successfully to increased demands and unprecedented social change. Rather than retraining individuals, the organizational perspective focuses on restructuring the system and developing new patterns of defining and coordinating the individual efforts of teachers, administrators, students, and parents. Simply and sharply, the distinction between the two perspectives boils down to this: The individualistic approach concentrates on changing people to achieve reform; the organizational view seeks the same ends by changing the settings in which people function.

In reality, the two perspectives are not as independent or contradictory as the comparison seems to suggest. When individuals are renewed or retrained, old patterns of roles and relationships frequently are made obsolete. Similarly, when systems are reorganized or changed, individuals often need to be trained for new roles and provided with skills and insights for adjusting to new relationships. The debate is over where to begin and the emphasis that each should be given in a particular situation.

Most administrators have not deliberated over whether to use an organizational or an individualistic perspective. Reform efforts in schools have concentrated on the training and renewing of individuals: teacher inservice, parent education, teacher improvement centers, and administrative renewal activities. All focus mainly on the development of individual outlooks, skills, or attributes. This approach is grounded in the assumption that producing better teachers, parents, and administrators will automatically result in better schools. Thus, the "eggs" of improvement have been placed in one basket.

Why have renewal efforts in education made individuals rather than organizations the primary target? Speculation yields several possible reasons. Cultural-philosophical influences may be one factor. Although Eastern cultures regard humans as being just one part of a complex natural system, the West attaches greater importance to the place of the individual in the system. Second, the individualistic emphasis is probably influenced by our basically egocentric nature--the idea that within each individual is the key to both continuity and change. Third, because of its popularity, the field of psychology has powerfully influenced our conceptions of the world and the importance

of individuals. Finally, the individualistic emphasis is encouraged by a basic lack of understanding about systems and how they function. Our knowledge of people and how they can be changed is seen as well-developed, and is backed up by "common sense." "Systems," however, are often perceived as complex and dominated by concepts that are beyond understanding or the average mortal's ability to change.

The individualistic influence is not just central in approaches to educational reform and change; it can also be found in most social reform efforts. Delinquency prevention, Head Start, drug rehabilitation, and programs to help the handicapped--all emphasize the individual as the object of change (see especially Caplan and Nelson 1974). The assumption is that people are the root cause of problems and must, therefore, be the primary focus for solutions. Rarely does the situation or setting receive as much emphasis in response to major social problems.

Why has the foregoing laid such stress on the predominance of the individualistic perspective in schools? We are emphasizing the issue because a perspective, or frame of reference, determines what questions are asked, how problems are defined, the change strategies that are proposed, selected, and implemented, and the methods that are used to evaluate the results. For administrators grappling with the problems of schools in modern society, selecting an appropriate perspective, therefore, becomes a highly important task. To illustrate its importance, let us compare the individualistic and organizational perspectives in even more detail.

Figure 1 contrasts the two perspectives in terms of four important dimensions: (1) underlying assumptions, (2) the kinds of questions that are posed, (3) the ways problems are defined, and (4) the change strategies that are eventually developed. Throughout the comparison, the central distinction between the two perspectives is evident. The individualistic perspective focuses on the characteristics of people; the organizational perspective emphasizes the settings in which people operate.

Comparing the two perspectives reveals their basic conceptual differences. But the actual consequences of using either of the two perspectives to approach educational problems are more crucial to administrators. Each perspective leads the administrator to different problem-solving activities. Let us look at some examples.

Case 1: Faced with declining enrollments, an elementary school is closed and the principal is given a district office position. His primary responsibility is to establish a district-wide process for teacher evaluation. However, the principal has had no experience in the area of evaluation and has most often thought of himself as a curriculum person. During the first months in the new position the

Figure 1

CONTRASTING THE INDIVIDUAL AND ORGANIZATIONAL PERSPECTIVES

	INDIVIDUAL PERSPECTIVE	*ORGANIZATIONAL PERSPECTIVE*
UNDERLYING ASSUMPTION	Individuals cause change Individuals are the targets of change efforts	Situations and settings cause change Situations, settings, and groups are the targets of change efforts
QUESTIONS POSED	What personality characteristics influence behavior? How can these traits be changed?	What setting characteristics influence behavior? How can the setting be altered?
DEFINITION OF PROBLEMS	Problems are caused by individuals (their outlooks, backgrounds, etc.)	Problems are caused by situations, settings, and environments
CHANGE STRATEGIES	Training or intervention aimed at changing personality traits	Systems renewal or structural change by redesigning and training

ex-principal becomes anxious, alienated, and depressed. The superintendent receives several calls from teachers and other principals complaining about the lack of progress on the district-wide evaluation procedures. How can the superintendent deal with this situation? Each perspective produces a different strategy.

	Individualistic	Organizational
Initial Question	What can we do about the principal?	What can we do about the principal's role?
Perceived Problem	The principal lacks experience in the area of evaluation.	The principal's role is not defined to make use of his strengths.
Strategy	Send the principal to an inservice course in evaluation.	Survey the district office staff to see if a reorganization of responsibilities or the assignment of specialists to a team might permit the principal and other staff to use their skills more effectively.

Case 2: A school district is experiencing major conflicts among the various people in the district. This conflict exists within all levels and is particularly acute between the district office staff and principals. At the school level, there is considerable conflict between the principals and occupants of a newly created role--resource teacher. How does this situation look from the two perspectives?

	Individualistic	Organizational
Initial Question	Why do the people in our district have so much trouble getting along?	What is there about our organization that produces so much interpersonal conflict?
Perceived Problem	The personalities and individual orientations of the people in our district are very diverse, making harmony impossible.	The roles and responsibilities in our organization are ill-defined and overlap. There is no established procedure for resolving conflict.
Strategy	Hold a human-awareness workshop to make individuals more sensitive to others and to give them more interpersonal skills in dealing with conflict.	Discuss roles and responsibilities to identify areas that are unclear or that overlap. Develop formal procedures for resolving conflict.

Case 3: A student in a high school social studies class acts bored, hostile, and indifferent. This same pattern of behavior has been observed in students in other social studies classes. A counselor brings the matter to the attention of the school principal and asks for advice in dealing with the situation.

	Individualistic	Organizational
Initial Question	What is wrong with this subgroup of students?	What is there about the social studies program that turns these students off?
Perceived Problem	Poor motivation on the part of an identifiable student subgroup.	The curriculum may be irrelevant, or the evaluation procedures in social studies may not be clear or adequately linked with grades.
Strategy	Have the counselor talk with the students about the importance of social studies, or create a special class for these students.	Have the principal talk to the social studies department about revising the curriculum or modifying grading procedures.

In many ways; these examples exaggerate the distinction between the individualistic and organizational perspectives. In the everyday life of schools or school districts the distinctions would not be so clear-cut. But the individualistic view outlined above does highlight the way teachers, administrators, and other school participants often define and act on problems. When questions are asked, when problems are defined, and when strategies are devised and carried out, individuals are in the forefront; the setting is in the background. Consequently, in schools the crucial questions become: What is wrong with or lacking in individuals? How do the characteristics of individuals contribute to problems? And how do we get people to change?

Equally basic and penetrating questions about the organization are rarely raised. The principal dealing with a malfunctioning teacher team rarely asks: What is wrong with the team's organization? Is the problem being caused by poor role differentiation, too close a working relationship among the team's members, or poorly designed procedures for coordinating individual efforts? Possible remedies subsequently exclude such strategies as appointing a team leader, clarifying roles, and revising the way team members are evaluated.

Changing environments and resulting internal problems of schools and school districts are both creating the need for new organizational patterns and strategies. Vigorous coordinating talents that harness energy and resources are in great demand. In short, district and school organizational patterns need to be changed. Teachers must be provided ample organizational support for new instructional approaches. Parents must be given access to channels for formally influencing the educational process. Classrooms can be designed to reduce behavior problems and provide incentives for students to learn. Schools must be designed that will permit teachers and administrators to work together more effectively.

But these goals will never be reached if educators operate mainly from an individualistic perspective. Educational organizations will be hampered in their response to problems as long as individuals are the sole focus of attention. If school problems are seen as administrators who need renewing, teachers who need to be motivated, we have missed the point. Even if efforts could succeed in improving individual performance, new organizations would be required to accommodate new approaches, techniques, attitudes, behavior and relationships. For schools to succeed in responding to new tasks, an organizational view of the world is a must. It does not need to replace the individualistic view. But it must at least be given equal weight.

To develop a new perspective is not an easy task. It involves a reexamination of long-cherished views. It also requires a better idea of what to change toward and where to begin. An organizational perspective must be created and then put into action. We believe the

best starting point is to introduce administrators to knowledge of how complex organizations work.

Why start with the administrators? Because administrators play a key role and are the "legitimate" manipulators of a system. In school systems, the administrator's decisions can affect organizational change or even survival.

III. AN ORGANIZATIONAL PERSPECTIVE

Systems are composed of many parts, or subsystems. An automobile, as a "system" of transportation, has ignition, carburetion, steering, electrical, and energy conversion subsystems. The human body, as a biological "system," has several subsystems: vascular, pulmonary, nervous, and digestive, each with a specific function. The automobile is an example of a "mechanistic" system; the human body is an "organic" system. What each has in common is a number of specialized components which must function in some complex and coordinated fashion to make the system operate effectively.

Organizations are highly complex systems. They too have subsystems, each of which plays a necessary part in the overall operation of the system. The subsystems are distinguishable from one another. Yet they overlap and are highly interrelated and interdependent. The key to organizational survival, development, and effectiveness is knowing the important organizational subsystems and understanding how they are related. A mechanic knows the parts of an automobile and how they must function together. A doctor is familiar with the various human subsystems and how they operate in concert to produce a healthy human being. An administrator needs the same knowledge of organizations--a dynamic view of the various subsystems and how together they make each organization work.

An organizational perspective is a synthesis of organizational theory and knowledge. The perspective is based primarily on knowledge from sociology (see especially Perrow 1970, Scott 1975, Dornbusch & Scott 1975, Udy 1965) and systems theory (see especially Bertalanffy 1969). But the perspective also shows influences from political science and economics. The fusion of these disciplines, particularly sociology and systems theory, produces a perspective which (1) identifies the critical elements of formal work settings and (2) specifies the dynamic relationships between them. Organizational theory provides the concepts and framework. Systems theory brings the framework to life by specifying the chain reaction that occurs when any of the elements in an organization change or are changed.

In educational organizations, the district, school, and classroom make up three levels. Schools are part of a district. Classrooms are part of a school. On the other hand, each of these three levels can be viewed as a separate organization. Each classroom has its own authority system, rules and procedures, and role definitions. The teacher is the "manager"; the students are "workers." But the classroom also has its environment, which includes the school and the district.

Like all formal organizations, educational organizations are collections of individuals who pool their efforts toward specified ends.

Educational organizations share many features with other organizations such as football teams, hospitals, factories, and businesses. Educational organizations have goals, regularized activities, a division of labor, and various methods of coordinating specialized efforts. But educational organizations also have unique features which result from their central task. Schools are people-processing, client-serving organizations, funded by money from all levels of government and formally controlled by the lay public.

The Five Principal Organizational Subsystems

Educational organizations have five main subsystems, a feature shared with all other organizations. First, schools have goals. Second, schools have activities or technologies that are the organizational vehicles for reaching these goals. Third, schools have formally structured roles and relationships among the various participants. Fourth, in addition to the formal roles and relationships, schools serve as a setting for informal relationships, individual orientations, and small group processes and norms. Fifth, schools operate within a defined environment.

The five organizational subsystems are depicted in Figure 2. Together, the subsystems constitute an organized system in which people collectively participate. The system is therefore a human, organic system. The subsystems are critical elements of the system. They are abstract concepts which define the total system and provide a way of viewing its various functions.

Each subsystem is presented below. We will describe the critical elements of each subsystem and provide school illustrations and examples. In addition, we will make a distinction between simple and complex states of the various subsystems. Subsystems vary in complexity from setting to setting. We'll try to show this by contrasting the most simple with the most complex, thus identifying two extremes. In actual educational organizations we would expect each subsystem to fall somewhere along a line between the extremes.

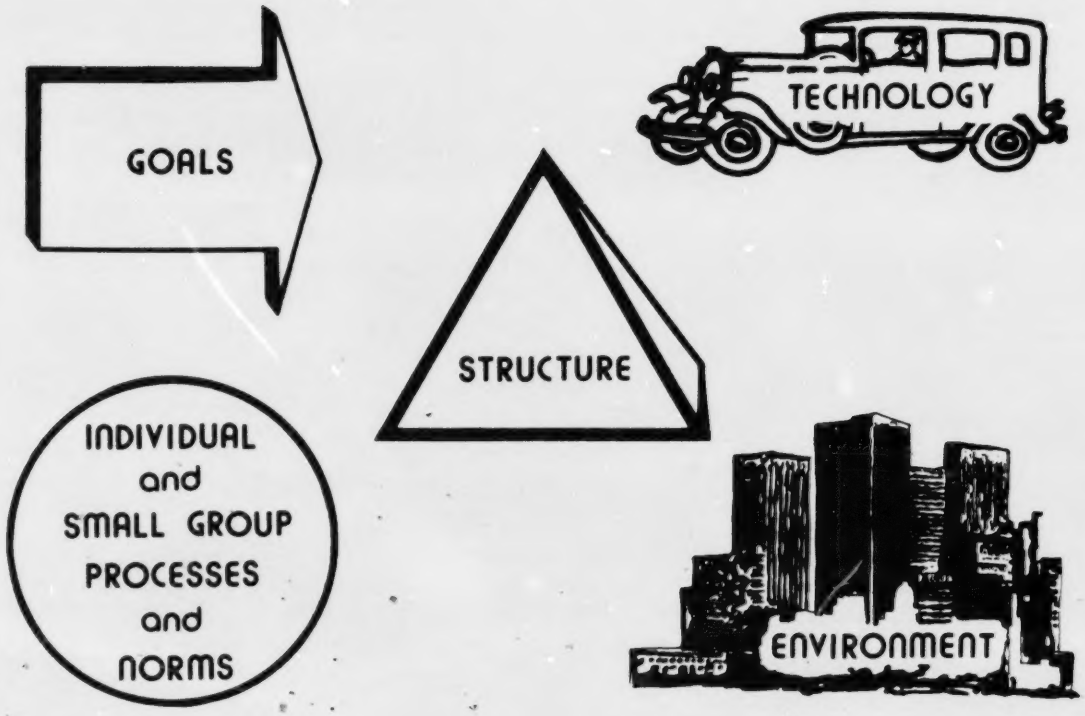
Goals

Goals are lofty, abstract, and diffuse statements of desired ends. Goals give organizations a general overall direction. They serve as symbolic rallying points for participants. They are used to obtain social support and resources.

Educational goals reflect the society's expectations for its schools. At times, these expectations produce goals that emphasize cognitive growth and the three R's: for example, "students will develop essential language and quantitative skills." At other times, goals reflect the importance of fostering citizenship, developing personal and social

Figure 2

The Five Organizational Subsystems



characteristics, or providing career or occupational training: "students will be instilled with a love and appreciation for American society"; "students will develop positive self-images and master essential social skills"; "students will be aware of career opportunities and develop salable skills in at least one area."

Three aspects of goal subsystems are particularly relevant in schools. First, schools can vary in the degree of goal consensus. In some schools, nearly everyone agrees on educational goals. In others, nearly everyone operates with individual priorities.

Second, goals can vary in specificity. When goals are too diffuse, an organization can lose sight of its direction, cease to have the support

and loyalty of participants, and lose valuable social support and resources. Lofty goals often cause drifting and wobbling. On the other hand, specific goals often produce divisive internal squabbles and hotly contested political struggles. Most superintendents and principals have undoubtedly experienced the drift and wobbling of schools with diffuse educational goals. Many administrators can painfully recall past efforts to articulate and clarify goals. Some administrators may be now experiencing the difficulties involved in developing more explicit educational goals.

Third, organizations vary in the number of different goals they pursue at any one time. Some organizations have one goal--making a profit. Others add goals of social service and concern for the environment. Schools are a good example of an organization with multiple goals. Society expects schools to accomplish several, often contradictory, goals. Schools are expected (1) to impart knowledge and develop the cognitive abilities of students, (2) to socialize young people into adult roles and the world of work, (3) to evaluate and certify that young people have completed various educational hurdles, (4) to sort young people into various social and occupational niches, and (5) to keep young people off the streets and out of the job market (Spady 1975). The emphasis assigned to these goals varies by district, school, and even classroom.

In sum, goal subsystems vary in specificity, number, and degree of consensus. When goals are diffuse and multiple, and consensus is low, the goal subsystem can be viewed as complex. When goals are specific and limited, and consensus is high, the goal subsystem is simple. Because of diffuse and multiple goals, on which there is usually little consensus, schools fall toward the complex end of the simplicity-complexity continuum.

Technology

Closely related to an organization's goals are the activities that are used to produce desired results--what organization theorists call "technology." Technology can be thought of as the vehicle for reaching goals. A technology includes materials that need to be transformed from one state to another, specifies "transformation" activities, and provides knowledge about the linkage between the activities and the organization's desired ends. An educational technology consists of several elements: (1) a conception of the learner; (2) specific learning objectives (desired end states concretized from general goal statements); (3) teaching and/or learning strategies; (4) assessment activities (diagnostic and evaluative) designed to determine what learning or teaching activities students need and the results these activities yield; and (5) knowledge about the conditions under which different activities will produce specified results.

In schools, the principal technology is the instructional program. School people often think of instructional programs as either traditional or innovative. From an organizational perspective, however, instructional technologies are characterized by their complexity. How many student characteristics or abilities does the technology take into account in defining the learner's needs? How many different learning objectives does the technology include? How varied are the learning materials and activities? How systematic are the assessment activities? Is the relationship between teaching strategies and learning outcomes known?

The distinction between a complex and simple educational technology is based on (1) the basis for differentiating students, (2) the number of objectives, (3) the number of materials and activities, (4) the level of discretion required in assigning students to activities and in determining whether or not learning activities have had the intended impact, and (5) the extent of knowledge concerning the relationship between activities and outcomes. In simple technologies this linkage is often well-known. A certain recipe will in all probability produce the right kind of cake. In complex technologies, however, the relationship between means and ends is highly uncertain and the effect a specific instructional technique will have on an individual student cannot be pre-specified.

Consider two fourth grade classrooms, one with a simple technology, the other with a highly complex technology. In Classroom A, students (1) are categorized as fourth graders, (2) all learning about the California Indians, (3) through teacher presentations, (4) with written quizzes and tests administered periodically to determine how well each student has "mastered" the subject, and (5) there are few questions about cause and effect. The implicit assumption is "smart students learn and dumb ones don't."

By contrast, in Classroom B, students (1) are seen as individuals with varying abilities, interests, skills, and learning styles, (2) pursue a wide range of instructional objectives, (3) are assigned to a variety of learning activities and materials, and (4) are assessed both prior to and following a learning sequence. The linkage between learning activities and outcomes will be more problematic. The assumption is: "Learning is complex. The best we can do is to attempt to match students with the most appropriate activities. Determining the match is difficult but it is the best we can do."

Once again, many instructional programs or technologies are to be found between the complex and simple extremes. Generally, because of the emphasis that has been placed on instructional improvement during the past few years, the technologies of schools have become much more complex.

Formal Structure

Structure is the formal network of (1) organizational roles, (2) relationships, and (3) processes. Roles are formally prescribed behaviors and responsibilities. Teachers, speech therapists, principals, and students occupy different roles, or offices, in educational organizations. Each role carries different expectations and duties. Relationships are the formally specified ways in which occupants of various roles relate to one another in carrying out their duties. An organizational "chart" outlines formal communication channels, designates who reports to whom, and establishes evaluation rights. Social studies teachers, for example, "report" through their department chairman and are evaluated by both the department chairman and the principal. Systematic, formalized processes and procedures are established to coordinate roles, make decisions, solve problems, and resolve conflicts. Committees develop standardized approaches to reading instruction. Superintendents and school boards make decisions to close schools. Grievance procedures specify what happens when a principal and teacher cannot resolve a conflict.

Roles, relationships, and processes can vary from school to school, district to district. The student's role in one school can be active, and require autonomy, self-direction, and creative expression. In another school the student's role can be reactive. The student is tightly supervised and directed to learn and recite what the teacher selects. In some districts specialists relate to teachers by providing advice when requested. In others, specialists take initiative in offering advice and are even given responsibility for evaluating aspects of a teacher's performance.

In some schools, evaluation, problem-solving, planning, and conflict resolution processes are highly formalized. In many schools, such processes are highly informal and sporadic. In some districts, superintendents make nearly all important decisions. In other districts, principals, teachers, and parents are highly involved in the decision-making process.

Formal structure is not the same as an inanimate organizational chart. It provides the framework for human interaction in a work setting. It influences individual behavior. And, most importantly, formal structure helps determine how effectively an organization will accomplish desired goals (Lawrence & Lorsch 1967). The "structure" of a giraffe would make life difficult in a world of short grass. Similarly, a district organization "structured" for peaceful times in a homogeneous community would have problems in most communities today.

Formal structure has several important dimensions:

1. Size--how large the organization is.

2. Differentiation--how responsibilities are allocated to various units or roles creating the specialized parts.

3. Interdependence--the pattern of relationships between the roles or units.

4. Coordination--the mechanisms that exist to integrate the diverse efforts of various roles and units or to assure that the various parts work together.

We discuss each in turn, with particular emphasis upon coordination and upon authority as a coordinating mechanism.

Size. The size of an organization affects all the other elements of its structure. In large schools, roles are often more specialized than in smaller schools. High levels of interdependence in large school districts require more well developed and formalized coordination mechanisms than would be the case in smaller districts. Because of its overarching importance, size must always be a primary concern in designing organizations. Once size is determined, many other elements are "fixed."

Differentiation. Differentiation is the cornerstone of structure. Various tasks and responsibilities are divided among individual offices or roles. The division can be made in several ways. In schools, elementary teachers are assigned the responsibility for the total development of a group of students--usually of the same age. By contrast, high school teachers are given the responsibility for one specific subject which is taught to different groups of students. Thus elementary school teachers are differentiated by grade, high school teachers by the subjects they teach. But the responsibilities in schools could be divided in a number of different ways. Teachers could be given responsibility for specific ability levels. They could be assigned to instructional areas such as basic skills, enrichment skills, and communication skills. Some teachers could be given responsibility for diagnosing learning needs, others the task of providing learning activities or of supervising independent learning. Newer competency-based programs will probably assign some teachers the task of assessing competencies while others will provide learning activities in specific competency areas.

Other examples of differentiation abound in educational organizations. Differentiated staffing creates specialized roles. In teaching teams teachers often create specialized roles, take different responsibilities, or specialize in certain areas.

Differentiation can be lateral or vertical. We have thus far emphasized lateral distribution of tasks. But different roles can also be created by giving someone the responsibility for controlling or supervising others. We will talk later about such vertical differentiation when we discuss authority as a coordinating mechanism.

Compared to other organizations, schools are not highly differentiated organizations. High schools are more differentiated than elementary schools, but neither is as differentiated as many hospitals or industrial organizations.

Interdependence. Closely related to role differentiation is the concept of interdependence. Different roles can be related in a number of ways. Roles can be independent and function quite autonomously. Or the functions of one role can affect those of another. There are three types of interdependence. For example, responsibilities can converge or be pooled into one task, in which everyone in the school makes a specific contribution centered around the development of "the whole child." Alternatively, work sometimes flows in a sequence where the work of one role begins where another leaves off. The third grade teacher provides multiplication skills; the fourth grade teacher then begins the year with lessons in division. Often, roles are reciprocal; the work of one individual directly affects that of another and vice-versa. One teacher does creative writing; another then teaches grammar. They exchange students on a daily basis.

Teachers sometimes plan and teach together with reciprocal interdependence. One teacher has a group of students for teaching a math concept, the other provides drill and practice exercises. The groups are rotated between teachers every fifteen minutes. Or two teachers can actually teach the same lesson together. In this case, students "flow" from one teacher to the other in intricate patterns.

By contrast, in "self-contained" classrooms, teachers frequently function independently. Because specialists often pull students from the classroom to receive special training, the roles of specialists and teachers also function independently. But specialists sometimes function interdependently with teachers by actually participating in the classroom--making observations, offering suggestions, or in tailoring programs for special student needs.

As the level of interdependence increases, so does the need for coordination. This brings us to the fourth aspect of structure.

Coordination. Allocating responsibilities to different roles or units increases the need for coordination. The need arises for several reasons. First, different roles attract individuals who, because of extensive training in a particular area, often see the organization in terms of their particular specialty. School counselors, for example, may place personal growth above learning basic skills. Similarly, speech therapists emphasize the importance of speech patterns, and history teachers think that historiography is a basic skill that all students should acquire. Second, people in different roles develop diverse orientations, preferences, and outlooks. They also develop different attitudes about time, structure, and other important issues.

Math teachers may operate orderly classrooms where each concept is presented in a sequential order. Social studies teachers may emphasize close interpersonal relationships and a more flexible approach. Third, from the standpoint of organizational goals, various specialties may need to be integrated into some coherent whole. Schools often emphasize the concept of the "whole child" as the primary organizational goal. It is therefore necessary to coordinate the roles which contribute the specialized parts that must be integrated into a unified product.

Without adequate coordination, each role or unit tends to pursue its own subgoals and the organization becomes fragmented. Coordination distinguishes formal organizations from loose confederations and mobs. Coordination is the primary organizational mechanism for channeling diverse and specialized contributions into a unified whole.

At the same time, coordination is often viewed by people within organizations as an infringement on creativity and professional discretion. People generally prize autonomy and freedom. Coordination implies control and giving up a certain amount of individual autonomy for the collective welfare. Coordination involves the age-old conflict between the individual and the group or society; and in a highly individualistic society like ours, coordination is particularly suspect. In professional and semi-professional organizations the issue of organizational control and coordination is further intensified by professional norms emphasizing discretion and autonomy. Partly because of their professional or semi-professional status, teachers relish autonomy and resist coordination.

Nevertheless, even in professional organizations a certain level of coordination and control is required to keep the organization intact. Without adequate coordination an organization develops segments, each operating independently. While such a response often helps an organization adapt to a turbulent environment, effectiveness may thereby be reduced. Organizations without adequate coordination are like individuals whose central nervous system is impaired. Each part can be in perfect working order, but performing a complex task such as walking or running is impossible. Complex tasks require an individual with highly differentiated parts which also work smoothly together. The same is true of organizations.

Organizations vary in coordination needs. Size, differentiation, and interdependence create the need for coordination. Large, differentiated organizations where roles or units are highly interdependent require more coordination than small organizations with independent self-contained roles or units.

Organizations can be coordinated in several ways. An office or role can be created with legitimate power or authority to regulate others. Policies, rules and procedures can be developed which limit the discretion of particular roles or units. Formal meetings provide arenas

where, through face-to-face interaction, the efforts of various individuals or groups are synchronized. Special roles or units can be created with the specific responsibility of integrating the work of various individuals or units. Coordinating roles are generally staff, as opposed to line, functions.

These various coordination mechanisms are related. People in authority roles, for example, create rules and procedures, and rely on formal meetings to make these rules known. Each mechanism also has certain advantages and costs (Galbraith 1973). Relying solely on authority, while convenient, often overwhelms administrators with responsibility and alienates them from subordinates. Policies, procedures, and rules may reduce time and make expectations clear but are often too binding and rigid. Formal meetings, which provide for full participation and increase legitimacy, require an enormous expenditure of time. Formal coordinating roles, while effective, are expensive to create and increase the complexity of the organization--thereby creating the need for additional coordination. We now examine each coordinating mechanism in somewhat more detail.

Authority is an important means of organizational coordination, particularly for administrators. Administrative positions are offices with legitimate power, or authority, to control or coordinate the efforts of others. Administrators achieve coordination by exercising authority in several ways.

First, administrators make decisions. Such decisions have an important impact on how lower-level participants work together. For example, a principal can decide to adopt a new curriculum in which teachers focus their efforts on a high-priority instructional goal determined by parents. Such a decision reduces individual teacher discretion and focuses the school resources toward a common goal. But authority in schools is ultimately vested in the board of education. The board--or the superintendent--may therefore decide that the individual principal's decision to align the curriculum more closely to the needs of the local community infringes on the district's need for a "coordinated" approach to instruction.

Second, administrators solve problems. When new issues arise that defy "standard" organizational solutions, the problem is "kicked upstairs." Persons in authority roles solve the problem, which helps assure a unified approach. For example, in a school where students in several classrooms suddenly exhibit a rare skin disease, the principal may be asked to "solve the problem." Each teacher does not solve the problem individually. The principal's solution provides a coordinated or organization-wide approach to the crisis.

Third, administrators resolve conflicts. Two students have a fight over instructional material; two teachers disagree about how to handle

a discipline problem; the specialist insists that a teacher provide a program for a student which the teacher thinks is "harmful"; or the custodian refuses to leave the previous day's work on the blackboard. Many such conflicts are resolved at the level where they occur. When they aren't, the conflict is taken to the next level in the authority hierarchy. There it is ultimately resolved.

Fourth, administrators evaluate. Evaluation is the primary means of organizational control and coordination. In evaluating the performance of specialized roles, criteria are specified, performances are observed, and appraisals made and communicated. In program evaluation, information taken before and after provides an indication of a program's impact. Good evaluations are rewarded; poor evaluations result in negative sanctions. Evaluations thus keep individuals or group performances on target and related to the central work of the organization. Criteria for a teacher's classroom performance (at least theoretically) are linked to the school's goals and to specific role expectations. When a principal observes a teacher's classroom and conducts a conference to communicate the evaluation, an attempt is made to coordinate or synchronize the teacher's contribution with the school's overall mission.

In sum, the primary function of authority is to insure that individual efforts contribute toward common ends. Superintendents, principals, team leaders, and department chairpersons are examples of authority roles. Administrative coordinating responsibilities involve making decisions, solving problems, resolving conflicts, and evaluating both performances and results.

Coordination is also accomplished through policies, procedures, and rules. Standard Operating Procedures (SOP's) specify "how things are always done around here." Policies are like a constitution which governs the day-to-day operation. SOP's give each participant an idea of what to expect from others and how they can mesh their responsibilities with the total organizational effort. SOP's assure continuity in the organization's responses (and products) and prevent arbitrary or capricious treatment of people or events. Explicit, well-defined policies help insure the coordination of individual efforts.

In an open-space instructional area, for example, teachers often develop explicit policies governing classroom discipline. Infractions are treated the same way by all teachers. Such a coordinated approach reduces conflict among teachers and assures that children in the classroom will be treated equally. A school policy specifying a certain approach to instruction gives teachers guidance in developing their own instructional program. It also helps relate each teacher's approach to a school-wide program. As students move from class to class or teacher to teacher, they therefore know what to expect. Each individual teacher's efforts thus contribute toward the overall educational goals of the school.

Although explicit policies often increase coordination, they can also lead to inflexibility and rigidity. An example would be a school district in which schools cannot adapt to changing community conditions because of strict, inflexible district policies.

Diffuse policies, on the other hand, while permitting greater discretion on the part of individuals or local units, can result in anarchy, particularistic decisions, or extraordinary time demands. This can be illustrated in the case of an alternative school where no policies were developed for admitting or expelling students. Each case was decided on individual merit. The result was confusion, conflicting decisions, and an enormous expenditure of staff time.

Formal meetings are another means of organizational coordination. The faculty meeting brings individual teachers and specialists together to discuss school-wide issues. In grade level meetings, teachers compare notes and discuss problems of mutual concern. In team meetings, teachers plan and discuss areas that require collective attention. Instructional committees meet to discuss school-wide instructional matters. The district's leadership team allows line personnel to help solve district-wide problems.

In such meetings decisions are made, problems are solved, conflicts are resolved, and information is exchanged. Formal meetings keep various roles and units aware of the activities of others and permit adjustments where necessary. They also keep various roles focused on the overall goals of the organization and aware of how their specialized contribution fits in. In the diagnostic clinic of one school district, psychiatrists, social workers, speech therapists, psychologists, and teachers meet in case meetings where the contribution of each specialty is required to determine a child's diagnosis.

In some organizations, the problems of coordination are so great that special coordinating roles or units are created. Such roles or units perform liaison functions between two or more groups where their respective contributions must be coordinated, but cannot be through other mechanisms.

To sum up, the structural subsystem has four main dimensions: size, differentiation, interdependence, and coordination. To accomplish organizational tasks, responsibilities are assigned to various roles or groups. But individual contributions must also be integrated into a total effort. This is accomplished through authority, policies, formal meetings, and coordinating units.

The subsystems discussed earlier were contrasted in terms of two polar opposite states, simple and complex. The same distinction can be applied to formal structure. Simple structures are those with low role differentiation and interdependence, where coordination is accomplished

primarily through authority. Most elementary schools have simple structures. Each teacher is assigned full responsibility for a group of students. In carrying out these responsibilities, the teacher does not need to take into account the work of other teachers (except at the beginning of the year). What little coordination goes on is provided by the principal and an occasional faculty meeting.

Complex structures are those with a high degree of role differentiation and interdependence. Here, coordination is accomplished through combinations of all the coordination mechanisms. High schools, for example, are more complex than elementary schools. Teachers specialize by subject area. Counselors and other specialists provide their input. Coordination is carried out by both the principal and the department chairman. Faculty meetings, department meetings, and meetings between the principal and department or unit "heads" are held to coordinate efforts.

But generally, the organizational structures of schools are not highly complex. They are, however, becoming more so. In some elementary schools and high schools, role differentiation, interdependence, and coordination patterns are increasingly complex. But, compared to recent developments in other subsystems, the complexity of formal structure in schools may be lagging behind.

Informal Norms and Processes

Informal norms and processes are the unspecified features of organizational life that can make the administrator's life either pleasant and rewarding or exceedingly difficult. Informal norms and processes arise from the personal needs, beliefs, and orientations of individuals and the social needs of small groups. Unlike the formal structure, the informal part of an organization is often irrational and unpredictable. The informal system keeps the organization from becoming a non-human machine. But the informal system itself has patterned and regularized features.

Included in the informal system are: (1) communication patterns (Who talks to whom?), (2) affective ties (Who likes whom?), and (3) informal influence (Who has the most clout in the teachers' lunchroom?). The informal system also has powerful norms which determine "how things are <u>really</u> done around here." These norms often contradict formal policies and rules. Often, they are more important than the formal structure in regulating and determining behavior and action within the organization. Being snubbed by one's colleagues can be as painful as being scolded by the principal. One new teacher, for example, was given an orientation to the school by the principal. Upon leaving the office, the novice was cornered by an older teacher who said, "What he told you is bunk. Now let me tell you a few things...."

Kitchen cabinets, the Saturday night poker gang, the Friday TGIFers meeting at Josie's Bar, and the elite in-group who play golf or lunch with the superintendent are examples of informal groups that provide the settings in which these norms and processes work.

In schools, there are many such norms and processes which together make up the culture, climate, or informal system. "All teachers must be treated equally." "Teachers are autonomous professionals." "Never intrude on another teacher's class." "If the principal visits your class more than twice a year, you are in trouble." "Never criticize a colleage in front of a parent or student." Such norms are as integral to the organization as are formal policies and rules. These informal norms may coordinate individual efforts. But often norms are at odds with formal coordination and control.

Individuals have personal preferences and routine patterns of carrying out their responsibilities in an organization. Personal satisfaction, identity, self-concept, and rewards are intricately interwoven with individual preferences, patterns, and daily behavior. Similarly, as individuals relate to each other in small groups there are accepted codes and prescribed patterns for relationships. From these also, individuals derive rewards, and, on the basis of their participation in informal settings their identities and orientations are formed and reformed.

As with the others, the informal norms and processes subsystem may be simple or quite complex. Simple, informal systems have relatively uniform norms and processes and are fairly consonant with the formal organization. Complex informal systems include a variety of often contradicting norms and contain individuals with radically different orientations, values, beliefs, and preferences. These are often in opposition to the formal system. As individuals relate to one another across roles and groups, they often find themselves at cross-purposes. Personal problems and intergroup conflicts can often be traced to informal disagreements or contradictions between formal and informal patterns. On the other hand, informal patterns may be highly effective in solving problems or in reducirg conflict.

Environment

Often organizations are viewed as "closed" systems or self-contained entities closed off from their environments. The contrasting view is that organizations are "open" systems interacting with and influenced by environmental pressures and forces.

Educational organizations are particularly open to their environments. While this may not make sense to some organizational theorists, it should to school principals and district superintendents, who "feel" the environment daily. For these reasons, we have included the environment as the fifth subsystem.

Schools are dependent on the community for both resources and students. Schools are accountable for designing instructional activities that relate to the goals of parents and the community.

The educational organization's environment consists of everything "out there": parents, teacher organizations, individuals, opinion leaders, social issues, community groups, economic conditions, the state legislature, and other schools or districts.

Some environmental factors are more immediate than others and constitute a "relevant" environment. Parents, local community groups, and the city council are examples. Other not-so-immediate factors are part of a "remote" environment. Examples would be the Congress, economic recession, and Nixon's resignation. On occasion, the remote environment can put direct pressures on a district or school. When this happens remoteness becomes relevance. An organization's relevant environment also changes over time. And the higher levels of the organization form the relevant environment for lower levels: the district is part of the school's environment, and the school is part of the relevant environment of an individual classroom.

From an organizational standpoint there are four important elements of the relevant environment: diversity, activity, stability, and predictability.

Diversity. Within any school or district environment there are many groups and often many different educational expectations. Sometimes the expectations of these groups are relatively uniform. More often, the environment is divided, pluralistic, and the expectations range from "kids need to be creative self-directed learners" to "kids need to be disciplined and master the three R's."

Activity. Some environments are passive; diversity is not communicated to schools nor are demands made public. Other environments are exceedingly active; diverse expectations are loudly and persistently voiced and schools are pressured to respond.

Stability. Environments also vary in stability. In some communities, various factions have been making the same demands for years. In others, new demands are frequent, old demands fall by the wayside, and new coalitions form frequently. One year it's "we need alternative schools" vs. "we need an emphasis on discipline." The next year, the alternative school controversy may be replaced with "let's teach career education" and "don't close our community schools."

Predictability. Finally, environments vary in their predictability. In some communities, principals and superintendents can accurately forecast the community's next year or two. In others, foreseeing a day or two ahead is a rare accomplishment.

Simple environments are uniform, passive, stable, and predictable. Complex environments are diverse, active, highly variable, and unpredictable.

Summary of the Five Subsystems

To summarize, organizations consist of five principal subsystems: goals, technology, formal structure, informal processes and norms, and the environment. The subsystems are listed in Figure 3, and a contrast is drawn between those characteristics which make a subsystem simple or complex. In reality, of course, the subsystems overlap considerably, and there are many degrees of simplicity or complexity. For any subsystem, most organizations probably fall somewhere between the two extremes.

Presenting the subsystems as separate entities provides a framework to assist administrators in simplifying complex systems. Without such a framework, administrators can be overwhelmed and paralyzed by disorganized confusion. The framework can then be a useful administrative tool for defining and solving complex problems.

But the framework can also be used to generate guidelines for organizing schools. Stable and effective educational organizations may be those where complexity in one subsystem is matched by complexity in the others. A complex technology, for example, probably requires a complex structure. Similarly, a complex structure is probably required for survival in a complex environment. Without such a correspondence between subsystems, teachers, administrators, and students may be overwhelmed with conflict, paralyzed by excessive time demands, and demoralized by reduced effectiveness. In sum, the organizational subsystems are highly related--a central point which we will now discuss in greater detail.

The Relationship Among the Subsystems: The "Hernia" or "Pebble in the Pond" Theory of Organizational Change

The five organizational subsystems are highly interrelated. Some are more closely related than others. But goals, structure, technology, informal norms and processes, and environment form an intricate, complex system. When any of the subsystems change--or are changed--this fact has implications for all the rest. The dynamic interplay is best captured as a "pebble in the pond" or "hernia" theory of organizational change. Pressures on any one part of the organization ripple across and produce "bulges" in other parts. A change in the environment, for example, can make an organization's goals obsolete. The Salk vaccine and the March of Dimes is a case in point. When the Salk vaccine virtually eliminated the dangers of polio, the March of Dimes was forced to revamp its organizational goals. As another example, changes in technology may place new demands on the formal organizational structure. The introduction of the "long wall" method of coal mining in

Figure 3

SUMMARY OF SIMPLE AND COMPLEX STATES OF THE FIVE ORGANIZATIONAL SUBSYSTEMS

	SIMPLE	*COMPLEX*
GOALS	Explicit—singular High consensus	Diffuse—multiple Low consensus
TECHNOLOGY	Students seen as uniform (by age grades)	Students seen as individuals varying in needs, interests, abilities, and skills
	Few learning objectives	Many learning objectives
	Few materials and activities	Many materials and activities
	Routine diagnosis and evaluation	Non-routine, highly systematic diagnosis and evaluation
	Known linkage between teaching strategies and learning outcomes	Linkage between teaching and learning unclear
FORMAL STRUCTURE	Little role differentiation	High level of role differentiation
	Low levels of interdependence	Highly interdependent roles
	Heavy reliance on authority as a single coordination mechanism	Reliance on a number of coordination mechanisms: authority, policies, formal meetings, and coordinating units and roles
INFORMAL PROCESSES AND NORMS	Uniform	Diverse
	Congruent with formal structure	Often in opposition to formal structure
ENVIRONMENT	Uniform	Diverse
	Passive	Active
	Stable	Variable
	Predictable	Unpredictable

England made it impossible for coal miners to continue operating in shifts of specialists. Instead, to maintain production levels and morale, miners had to be organized into teams with each specialty represented. In turn, changing the organizational structure interfered with existing communication patterns and informal norms.

There are many examples of the "hernia" effect in schools. The dynamic interplay begins when an organization's equilibrium is upset by changes in one or more subsystem. In the illustrations below, changes occurred as a result of social and economic forces, new inventions, or administrative action. But the result is always the same. Changes in one part of the organization are felt in all the rest, with negative outcomes. The examples given here are composites of actual changes in schools; the details have been altered to protect the identities of administrators who were unaware of the complexity of the change process.

Changing goals. One elementary school expanded its educational goals to include affective outcomes. Among these goals were "building positive self-esteem and self-concept" and "developing the ability to get along with others." Once adopted, it became apparent that the instructional program or technology needed to be altered to include activities specifically aimed at personal and social objectives. Individual and small group activities were developed which, in turn, altered the relationships between teachers and students. Teachers became less directive and students became more autonomous. The role change required major shifts in the individual orientations of many teachers and violated many of the informal norms for teacher behavior in the classroom. At the same time, many parents and other members of the community became concerned about what they saw as a radical departure from traditional instructional practices. They worried about whether the students were receiving proper instruction in the basic skills. These concerns resulted in formal protests to the principal: "We approved of the new goals, but we never thought their adoption would result in anything like this."

Changing informal processes. The leadership team of one school district--principals, district office personnel, and the superintendent--went away to a remote hideaway for a weekend of "sensitivity" training. The primary purpose of the weekend was to "improve the communication among the members of the leadership team." During the session many existing barriers between individuals were removed, some intense negative feelings were revealed, and some deep personal concerns were shared. At the end of the weekend, the enthusiasm and closeness of the group reached an all-time high.

Upon returning to the district, the change in members of the leadership team was evident. They were more communicative, more open, and more willing to share their feelings--with themselves and with other people. However, the formal structure of the district had always emphasized hierarchical authority. The new behavior thus ran counter to the established patterns. The superintendent began to resent principals who "undermined" his authority. While it was okay for principals and the superintendent to be open and honest with each other, the superintendent remained responsible for formally evaluating principals and approving most decisions made at the school level. The honesty of some

principals began to show up in their formal evaluations. The superintendent was now aware of problems which had always existed but of which he previously had been unaware. Teachers, accustomed to strong direction from principals, were threatened and overwhelmed by new opportunities to exercise discretion and to participate in decision-making. In addition, some long-established informal district and school norms had consistently encouraged such attitudes as "keep the ripples off the pond," "don't rock the boat," and "if you can't say anything nice, don't say it." The new interpersonal approach of the district staff and principals ran directly counter to these norms. To make matters worse, rumors circulated in the community that the "sensitizing" retreat had included nudity, frivolity, and other behavioral transgressions. Board members began receiving calls questioning the "morals" of the leadership team. Within a short period, the new communication patterns and approaches to administration returned to where they had been.

Changing technology. In response to an emphasis on "individualizing" instruction and providing a "personalized program for each student," a school sponsored a two-day workshop for teachers. The workshop encouraged a majority of teachers to begin an individualized program in their respective classrooms. The programs provided reading and math materials and strategies which took into account each student's ability level, interests, learning style, and learning strengths. The programs emphasized diagnosis. Teachers assessed each child and tailored an individual program based on the results of several diagnostic tests. Each child's progress was systematically evaluated and charted.

From the beginning the new approach to instruction placed a heavy burden on teachers. Teachers complained of being overworked, spending evenings and weekends at school, not being able to keep up with all the paperwork, and unable to control the class. The principals responded to these complaints by assigning an instructional aide and parent volunteer to each classroom--a structural change. The teachers then complained that they were unable to coordinate the new people, to have ample time to teach, and to cope with the conflicts between the aides and volunteers.

The change in technology and structure also violated informal norms that "teachers are supposed to be the autonomous heads of the classroom," "teachers are supposed to teach, not be managers and administrators," "a good class is a quiet class," and "teachers should get their chief rewards from students."

Initially, the parent and community response to the program was positive, but when difficulties began to appear, when students often complained of being confused and neglected, and when parent volunteers mentioned classroom chaos and low teacher morale, both parents and

community members began to complain about the new approach to the principal and to individual board members.

Changing structure. A large school district decided to decentralize authority to individual schools by implementing a "participative management plan." Essentially a structural change, the plan called for moving a great many fiscal, instructional, and other important decisions to the local school site.

Initially, there was strong consensus for decentralizing. But when elements of the plan were operationalized some problems began to emerge. First, new formal demands were placed on principals and teachers to make decisions. Roles and responsibilities at the local site began to change; principals and teachers were asked to assume more authority, to spend more time in formal meetings, and to develop skills in decision making. The district staff was required to provide new fiscal information, to develop new evaluation methods, and to coordinate diverse school decisions into an overall district plan.

With the shift in authority, individual schools began to realign goals to fit the specific needs of their own clientele. Within the district, then, goals became more diverse. The district office was required by the board to develop a process for assuring that goals of the individual school sites were compatible with those of the district.

Decentralizing authority also affected informal relationships within the district and in individual schools. Friendship patterns between district office administrators and principals began to show strain. The superintendent's "kitchen cabinet" became obsolete. Principals, unable to blame problems and decisions on those "up there," experienced new conflicts with teachers--even those with whom they had previously been close friends.

Within the community, many of the complaints previously directed at the board and superintendent were now received by principals and teachers. Parents were often disturbed by the superintendent's response to their complaint: "You'll have to take that up with the principal." Another part of the environment also became agitated. The district's teacher organization had exercised strong influence over many district policies. The association's primary goal was to raise teacher salaries and to upgrade working conditions of teachers. The principal activity was collective bargaining with the district administration, and the association's structure was established to carry out the negotiating process effectively. When decisions were moved to the local school site, the goals of the teacher organization, and its principal activity, became obsolete. Understandably, the teachers' association deemed the decentralization move a threat and began lobbying to reestablish the previous centralized pattern.

Change in environment. The "counterculture" revolution of the 1960's involved a total reexamination of many established social beliefs. Chief among these were the cherished values, beliefs, and philosophies about the nature of education. The movement championed experience over abstraction, spontaneity over planned development, autonomy over authority, and immediate over long-range gratification. Although in many respects the counterculture revolution was a shift in the "remote" environment, its effects also flowed directly into the "relevant" environment of many school districts and schools.

The counterculture shift brought new pressures for changes in educational goals. For the most part the emphasis was on the innovative, affective, and experimental side of education. As a result, many districts and schools found themselves in the middle of hotly contested battles over educational goals. In some districts the goals were changed; in some compromises were worked out. Others responded structurally by establishing "alternative" schools with goals in keeping with counterculture demands.

The counterculture also focused pressures on educational technology and structure at the school level. The technology was to include spontaneous, unstructured, experimental, and unplanned activities. The structure of classrooms was to reflect a new premium on the autonomy of individual students, who were to have a major say in what they did, where, when, and how. The environmental change even influenced individual orientation and norms. As a result, often districts and schools had two sets of values and norms, one "establishment," the other "countercultural."

Other examples of the "pebble in the pond" or "hernia" theory at work could also be cited (see Baldridge & Deal 1975 for several case studies). The important fact is that the five principal subsystems are intimately and intricately linked and that when any one changes, the effect ripples across or produces bulges in others. Adding a high-horsepower engine puts strain on the differential, transmission, and chassis of an automobile. An overactive nervous subsystem puts a heavy burden on a person's cardiovascular and pulmonary subsystems. Changing an instructional technology puts new burdens on structure, informal processes, and the environment.

The "hernia" theory applies not only to interrelationships between the five subsystems, but to elements within each subsystem too. Within formal structure, changes in role differentiation and interdependence affect coordination. Similarly, the ability of a school to maintain a high level of differentiation or interdependence is greatly influenced by the existence of appropriate coordination patterns.

Changes in a teaching team illustrate this point. Five teachers decided to increase their level of interdependence. Prior to the change, teachers taught their own classes, although they rotated

students once a month. The teachers decided to take collective responsibility for the entire group of students. In each subject, the teachers differentiated their roles by taking responsibility for an ability or interest group. The size and membership of these groups changed weekly, and sometimes daily. The frequent movement of students often required teachers to take into account prior lessons and instructional style. Mastering one lesson was essential before the next could begin. Students coming from a laissez-faire teacher often had difficulty adjusting to a more directive approach.

Increased interdependence thus created a need to coordinate individual teacher efforts. Initially the teachers coordinated their work through formal meetings. But they soon found themselves meeting daily, often for five or six hours a day. The teachers next developed specific policies for student conduct and a formal evaluation scheme for charting student progress. They finally chose a team leader who was given formal responsibility for meetings, evaluation, and other administrative matters.

In another of the school's instructional pods, a similar group of teachers also changed the organization of their team, encountered the same kinds of problems, but solved these by returning to their previous level of interdependence.

These same dynamics would occur if any elements were changed in a subsystem. Decentralizing authority creates the need for new patterns of coordination such as formal meetings, policies, and evaluation. Differentiating roles often produces conflict and the need to coordinate individual efforts. Creating an authority role can help solve conflicts and provide coordination, but similar effects may be achieved by establishing policies, increasing the number of changing the format of formal meetings, or developing new approaches to evaluation. Changes in environmental diversity can increase activity; changes in activity may lead to more unpredictability. In the technology, goals, or informal subsystems these same relationships exist. Changing any aspect of a subsystem affects all the others.

IV. IMPLICATIONS AND APPLICATIONS OF THE ORGANIZATIONAL PERSPECTIVE

The organizational perspective is more than a synthesis of organizational theory. The five subsystems and their dynamic interrelationships can be "put to work" by administrators in defining, coping with, and improving the day-to-day realities in schools. The organizational perspective has many implications for the behavior and roles of principals and superintendents. The perspective can be applied in school or district settings in a variety of ways. Accordingly, our attention now shifts from the theoretical side of organizational perspective to its important implications and applications.

First, we will distill from the theoretical discussion some general "rules" for administering school organizations. Second, we will relate the organizational perspective to the field of organizational development (OD). Third, we will illustrate how the organizational perspective can be used in administrative planning. Finally, we will illustrate how the perspective can be used in defining and solving organizational problems.

The Four General Principles of Administering an Organization

Rule 1: Administrators must be vigilant. The administrator needs to know when changes occur in any of the five subsystems. This knowledge is acquired through "sensing" or "scanning" antennae--asking the right questions, observing the right situations--which help determine when community make-up or sentiment shifts, when teachers adopt more sophisticated approaches to instruction, or when new district evaluation procedures may run afoul of entrenched informal norms. Being on top of such changes helps assure that the school or district will not be suddenly swamped with unanticipated problems.

Rule 2: Administrators must anticipate the impact of planned or unplanned change. Before an administrator implements the newest "innovation" or changes one part of an organization in response to a defined problem, the impact on the other subsystems must be carefully calculated. If an administration decides that competency-based instruction will result in improved learning, then several questions must be raised: How complex is this approach? Will it require changes in roles, relationships, or processes? Will the community support the program? Will we need to change our goals? Successful implementation will depend on how well these questions are addressed.

Rule 3: Organizational problems must be localized. An administrator cannot attack problems in all subsystems at once. Often, problems that first appear to be a product of informal processes are merely symptoms of underlying structural difficulties. Or, problems may occur because subsystems don't fit together properly. What may look like the

unwarranted concern of a hostile parent group may be related to a poor fit between how teachers are organized and a new instructional "package" which causes students to feel frustrated and disoriented. The parents are upset by student reports and thus vent their concerns to school personnel.

Pinpointing a problem within a subsystem or in the relationships between subsystems helps an administrator take action that deals with the cause rather than the symptom. At the same time, in "localizing" or pinpointing the problem, administrators must remember the intricate and often unpredictable relationships among the various subsystems. There is a fine distinction between "phantom" symptoms and "real" problems.

Rule 4: Administrators must deal primarily with organizational subsystems that can be changed. Localizing problems is an important step. But often the organizational difficulty is produced by a subsystem that cannot possibly be changed. A community polarized by fights about alternative education might be localized as an environmental problem. But unless the administrator is a statesman of Henry Kissinger calibre it would be difficult to unify community sentiment. It is just as difficult to change the informal norms of teacher equality and autonomy that may be subverting a differentiated staffing plan. The administrator first asks "What's the problem?," then after identifying and weighing various solutions asks "Can the most appropriate solution be implemented?"

Because proposed changes must be put into action, the structural subsystem looms as most important to administrators. It is the subsystem over which the administrator has the most control. He or she is in a key authority position to convene formal meetings, redefine roles, clarify relationships, change evaluation and decision making, develop policies and procedures, and create coordinating roles. None of these are easy tasks. But compared to changing environments, norms, individual dispositions, and goals, manipulating the structure can be "duck soup."

For this reason, administrators must emphasize formal structure as the primary means of dealing with problems and change. Since each organizational subsystem is highly related to the others, problems in one can be resolved by responses or adaptations in another. A principal with a community at war over traditional vs. alternative education solved the problem structurally by creating schools within the school, each with an emphasis that satisfied one faction.

From an organizational perspective, there is no "right" structure for a district or school. An "appropriate" structure is contingent on the nature of the four other subsystems. Although there are many ways to organize a school, each has certain benefits and costs. The formal structure must therefore be designed or tailored to "fit" the environment, goals, technology, and informal system of a specific setting.

There are many options. A school or district can be "structured" in a variety of ways. Size can be controlled. Responsibilities may be assigned in a number of patterns: individual roles, teams, or departments. Roles and units can function at various levels of interdependence. Coordination mechanisms can be selected that maximize the potential of and minimize the costs to the staff. When a school organization "fits" its situation and task, then the perspective assumes that the school will reach its peak effectiveness. Students will learn more, teachers and administrators will be satisfied, and the community will be more supportive.

Anticipating changes, implementing planned change, localizing problems, and designing formal organizational patterns thus emerges as important administrative tasks. Yet each of the four is much more easily said than done. Consequently, administrators need to locate sources of assistance.

The Relationship Between an Organizational Perspective and Organizational Development (OD)

One of the primary sources of such assistance is the field of organizational development (OD). Established to apply theory and knowledge to solve existing problems and to improve organizational effectiveness, OD has for years been an important asset for administrators in businesses, hospitals, and industrial organizations. Only recently has the field become known and accessible to educational administrators. (See bibliography for suggested publications.)

Potentially, OD can provide administrators assistance of three kinds: (1) specific strategies for defining and analyzing problems, i.e., the Delphi technique and force-field analysis; (2) specific strategies for training individuals and for improving small group processes, i.e., sensitivity training, T-groups, and communications-skill building; and (3) specific solutions for global organizational problems, i.e., PERT, management by objectives (MBO), and various decentralized management plans.

How does the organizational perspective fit into OD? The perspective provides a framework for determining the specific subsystems, or targets, that OD strategies are designed to affect. At the same time, viewed against the organizational perspective, OD as commonly practiced has some important limitations.

First, while OD has provided goal-setting and various "futuring" techniques, these have often focused only on one or two of the organizational subsystems. OD helps an administrator become partially vigilant. But the techniques often leave open an exposed flank. Second, OD has hitherto focused extensively on two organizational subsystems: goals and informal norms and processes. Techniques have been developed to

help administrators deal with these subsystems, but not others. Third, OD in practice has not always emphasized the importance of defining problems before strategies are implemented to provide solutions. OD practitioners have been guilty of using the same techniques for a wide range of problems. Fourth, OD has not emphasized organizational structure. The very subsystem most easily controlled by administrators has been short-changed in favor of more process or sociopsychological techniques. Indeed, OD practitioners have often been guilty of recommending decentralized management or other organizational patterns in situations where they may be highly inappropriate and dysfunctional. The premise that structure must be tailored to fit a specific situation has not been emphasized by many OD practitioners.

As a result, OD has not provided administrators assistance in proportion to the potential the field may some day offer. Administrators have been encouraged to emphasize some parts of organization over others, have not been given the tools to foresee the consequences of changing one part of an organization, and have not been given sufficient assistance in designing the formal structure of organization.

In sum, the organizational perspective is not an OD strategy, nor does it contradict existing OD efforts. The perspective is complementary to OD strategies and provides administrators a framework from which specific OD strategies can be viewed. It gives the administrator a way of thinking about how various OD strategies relate to one another, which strategy may be used to change a specific subsystem, and how one technique can be used compatibly with others.

Using the Organizational Perspective in Planning

Quite frequently, organizational change in schools begins with a solution. The legislature mandates a new approach to reading; the local community demands an addition to the curriculum in a new area such as conservation or sex education; federal funds are made available to establish career education programs; a visit to an educational convention convinces teachers that the "E-Z Method" reading program, successful in a faraway school district, is just the one for their school; or the superintendent decides that decentralization is a sure cure for the district's ills.

As noted, an organizational perspective emphasizes defining problems before solutions are proposed and implemented. Since appropriate instructional programs or formal structures are contingent upon other aspects of an organization, it is difficult to see the wisdom in developing an organizational or instructional change without first determining why it is needed. But realistically, schools--and other organizations--often do not go through the problem-defining stages. Often the objectives, constraints, and alternatives are impossible to determine. Even more important, defining problems is a difficult, time-consuming task.

Change in educational organizations often begins with: How do we implement a specific change--a new career education program, the E-Z Method Reading Program, or a decentralized management system? The task is to plan the implementation of a predetermined solution. In such cases, how can an organizational perspective be of assistance?

The organizational perspective or "hernia" theory would suggest that any of these specific changes will affect other aspects of the district or school. In implementing the change an administrator would therefore want to know as much as possible about each organizational subsystem. This knowledge would be a preliminary step in developing a list of concerns and contingency plans for implementing the change. Questions raised from the organizational perspective could become the basis for developing an implementation plan.

For example, suppose a school staff wants to implement the E-Z Reading Program. One approach would be to appoint an implementation task force, composed of representatives from the community, the teaching staff, and the administration. These representatives could then be further divided (role differentiation) into specialty teams organized around the five organizational subsystems. There would be a goals team, a community environment team, an informal norms and processes team, a formal structure team, and a technology team. The purpose of each team would be to determine possible barriers to the implementation of the E-Z Reading Program. Each subgroup would be provided a sheet with questions generated from the organizational perspective outlined earlier and charged with developing a list of subsystem strengths and weaknesses, specifically with reference to the proposed change.

Using this approach, the goals team would consider questions such as the following:

> What are the top priority goals for your school?
>
> Is there agreement among individuals or groups that the goals are appropriate?
>
> Are the activities that go on in your school a reflection of the goals?
>
> Who determined the goals?
>
> Were the goals based on an assessment of student needs? Community needs? Parent needs?
>
> Are the existing goals compatible with those of the E-Z Reading Program?

The technology team would consider questions relating to the instructional program. Comparing present instructional practices with the changes proposed in the E-Z Reading Program would be of critical importance. For example:

What student needs or characteristics are presently considered when determining or carrying out instructional activities? General academic ability? Specific abilities? Physical needs? Psychological needs? Social needs? Intellectual needs?

How are student needs or levels determined? Teacher hunch? Diagnostic tests? Student conferences?

How often do students get feedback on their performance? How is that feedback given?

Are classes multi-graded?

Is instruction "individualized"? Do students select their own goals? Activities?

To what extent are a variety of materials used during a particular period?

How many different student groupings are regularly used in a particular classroom? How often do these groupings change?

How are classroom rules determined? How explicitly are classroom rules stated to students?

Who decides which students will get what activities when? (Teachers? Programmed materials? The students themselves?)

How many teaching approaches are used in the school? How much diversity is there among the teaching approaches of individual faculty members?

What criteria do teachers use for determining their teaching approach? How do they evaluate the results?

Are teacher expectations for behavior and instructional outcomes made clear to students?

The formal structure group would concentrate on questions assessing the current state of the school's formal organization. On the group's agenda would be questions such as:

How frequently are teachers evaluated by other teachers? The principal? Students?

How are decisions made about schoolwide matters? About individual classroom matters? About interaction with the community?

With respect to specific decisions, do teachers, administrators and others know they are involved in the decision-making process? Are they involved at all? Must they be informed? Must they be consulted? May they be consulted? Must they approve decisions?

Are the various roles within the school clearly defined? Does the school have specialists? Nonprofessional staff (i.e., parent volunteers or aides)?

Do people know what their responsibilities are? To what extent must the various participants in the school take each other into account in carrying out their responsibilities?

How are the activities of various individuals or groups coordinated? (By policy? By planning? By authority? By mutual interaction? By chance?)

How explicit are the school's policies?

Does the school have subunits such as departments or teacher teams? Do these units exert considerable influence on school-wide decisions? Do teachers in teams or departments plan and teach jointly?

The informal processes and norms team would identify questions designed to determine the informal system of the school and how it might be affected by the implementation of the E-Z Reading Program. Guiding questions might include:

Does your school have informal cliques, leaders, and loners?

What kinds of inservice activities are provided? Why do teachers participate in these activities?

Are there informally prescribed ways of doing things? Of communicating? Of dealing with students? Of dealing with problems? Of cooperation among teachers?

How are conflicts resolved in the school? By smoothing over or avoiding? By consensus? By majority votes? By compromise? By authority? By bargaining and negotiating?

Do teachers expect to be equal to other teachers and autonomous?

Is the climate of your school warm and supportive or cold and competitive?

Are your school meetings enjoyable and productive? Do they run smoothly? Is there one or more person(s) who consistently try to dominate or control meetings?

What is the predominant mode of communicating used in your school?

Can people share feelings and affect easily?

Are there clearly identifiable peer groups among students? How do these groups affect individual students? Do students have opportunity for social interaction?

Finally, the community environment team would attempt to identify patterns among parents and the community members that might be important to the change in the instructional program. Questions might include:

Generally, what does the community environment expect from your school?

What are the identifiable subgroups in the community environment of your school?

What do each of these subgroups expect from the school? Are there notable differences or similarities?

Who are the leaders of each subgroup? Which groups are most influential?

How much support does your school receive from the community? How much resistance does the community give to the school?

What kinds of issues would produce conflict among the community subgroups? What kinds of issues would be widely supported?

Would you characterize your community environment as homogeneous, or diverse? Stable, or dynamic?

In what ways are people involved?

What mechanisms exist to relate community and school?

What resources are available in the community? Which of these resources are currently used? What may be needed in the future?

Using questions to stimulate discussion, each specialty team would generate a list of subsystem strengths and weaknesses and how these might be affected by the implementation of the E-Z Reading Program. This assessment would then yield a list of concerns that would be used in producing an implementation plan. For example, the community environment subgroup might list concerns that a group of parents would oppose such a change, that parents would need to be educated to the change prior to its initiation, or that a small number of influential community members would need to be involved in the program's implementation. Similar lists of concerns would be produced by each of the other specialty teams. The concerns would then be combined into a master list and compared.

Such a comparison might yield additional concerns about the interface between one or more of the subsystems. Next the team would want to list available resources that could be used to meet these concerns head-on. The final list of concerns and resources would be used as a basis for producing strategies. These strategies, resources, and the assignment of responsibility for carrying out a particular strategy would together form the implementation plan. To return to our example, the resource that can be used to combat the above community (environment) concern might be a "potent" PTA. The strategy would then be to use PTA personnel, power, and meeting time to inform other parents. A group of parents, then, would assume responsibility for parent education. One group of teachers similarly could take the responsibility for integrating the E-Z Reading Program with other reading curricula.

The principal might clarify the roles of classroom aides and develop an inservice program for both aides and teachers.

Using the organizational perspective in planning should reduce the unanticipated consequences of making a change in a particular subsystem. Changes in schools are frequently short-lived or unsuccessful (Baldridge & Deal 1975). Using an organizational perspective in planning may increase the probability of success.

Using the Organizational Perspective to Define and Solve Problems

As noted, educational change often begins with a solution. The organizational perspective helps a school staff develop plans for implementing change successfully. But many changes do not begin and end with solutions. Complex educational problems often have no ready-made solutions. Panaceas are rarely appropriate or effective. While planning can forecast some problems, no one yet has developed a "crystal ball" process. Problems must be solved as changes move through various stages of implementation.

Defining and solving problems is therefore an important administrative responsibility. Problems can be solved in a variety of ways. Most approaches to problem-solving, however, are versions of the classic "rational" problem-solving sequence. The sequence has seven basic steps:

1. The problem is identified
2. The problem is defined and analyzed
3. Solutions are generated
4. Consequences are forecast
5. A solution is picked and action is taken
6. The action is evaluated.
7. Based on the evaluation, the plan of action may be modified or a new strategy selected.

Administrators often move quickly from Step 1 to Step 3, skip Step 4 and move to Step 5. Steps 2, 4, and 6 are rarely taken. Some school administrators move consciously through each of these steps in solving problems. More often, however, the process is unconscious or intuitive. Intuitively, the administrator analyzes the problem and arrives at a well-informed "hunch" about how it might be solved.

For good administrators, intuitive, "seat-of-the-pants" problem-solving is often effective. But despite the many success stories that school administrators relate, there are several reasons why intuitive problem-solving is limiting and constraining. First, not all administrators are blessed with innate executive genius. Second, modern-day problems are highly complex and often exceed the seasoned, experience-based

intuition of many administrators. Successful experience in solving problems of the past is not always relevant to new situations. Third, specialization and a premium on involving diverse people in decision making and problem solving often means that problems are solved in groups--not by the administrator privately producing hunches.

For these reasons, the rational problem-solving sequence--all the steps, though not necessarily in sequential order--is an important administrative tool. It is not a panacea. It is not suitable for all problems. And, because it is so time-consuming, the process should be used sparingly.

There are many versions of the process. Some versions are more elegant and creative than others. Some emphasize the "bounded rationality" of the process. Others stress beginning the process by choosing the "preferred" solution and then bouncing among the other steps. Others stress the nonlinearity and openness of the process. But essentially, the basic underlying sequence is similar.

As important as the process itself is the perspective problem solvers share and the nature of the information that is gathered and used at each step. Earlier a heavy emphasis was placed on the importance of a perspective or a frame of reference in problem solving. The problem solvers' frame of reference determines the types of questions that are asked and the nature of information that is sought. Ultimately the frame of reference influences the solutions that are reached.

Often, school administrators approach problems from an individualistic frame of reference. In contrast, this monograph has emphasized an organizational perspective and has argued that such a frame of reference provides a stronger, more comprehensive approach to planning and problem-solving. We have shown how the organizational perspective can apply to planning. Now we link the perspective to problem solving.

To do this, we will focus on a case study of a small continuation high school. In this case study, a survey-feedback process was used to define the school's problems and to identify strategies for change. Survey feedback is a formative evaluation process (Deal & Hugenin 1975). It uses survey instruments, relies on an organizational perspective, and involves all participants in problem solving (Deal, Duckworth, & Robbins 1975; Deal 1975).

Sunshine high school has a principal, six teachers, and 220 students (10-12 grades). The school is located in a good-sized city and is three years old. The school was begun as an "alternative" school. Many of its subsystems were specifically designed to differ from those in the traditional high school.

Identifying the problem. In the third year of Sunshine High School, the principal became aware of tense, unspoken conflicts among

members of the staff. Individual staff members frequently "buttonholed" the principal to complain about other staff members. Staff meetings were frequently interrupted by angry arguments. Ultimately, a staff meeting was devoted to airing the various grievances. The initial conclusion was "we can't work together--our personalities and philosophies are too different." The discussion then moved to the obvious alternatives: "Who is going to change?" or "Who is going to leave?" On this note, the principal adjourned the meeting. Later in the evening, he decided that both obvious alternatives were untenable. The next day, the staff agreed and hired an outside consultant to assist the staff in moving from the identified problem to a problem analysis--one that would move away from individual personalities.

Defining and analyzing the problem. At the next staff meeting, the consultant drew five large circles on the blackboard and identified each as an organizational subsystem. The staff was then asked to brainstorm areas of concern in each of the five subsystems. The environment was quickly eliminated as a problem area--the community and parents were supportive and largely uninterested in specific activities at the school. Technology was also eliminated as a potential villain--both teachers and students were satisfied with the instructional program. From all indications, students' needs and interests were being met instructionally, and desired learning outcomes were being realized. The discussion then focused intensively on goals, formal structure, and informal processes and norms. The staff agreed that the problems were centered in these three subsystems but no one could reach agreement about the nature of the problems. The staff meeting adjourned with everyone frustrated and dissatisfied.

The consultant then convinced the staff that additional information might help focus the problems. Four information-gathering methods were suggested: (1) interview, (2) observation, (3) survey, (4) existing records. Because of limited time and resources and the perceived need for confidentiality, the staff decided that a survey was the most convenient and effective way of obtaining the needed information. A questionnaire was constructed with, among others, the following types of items:

Goals

How much emphasis do you think should be given to:

	Little or No Emphasis				A Great Deal of Emphasis
1. Teaching students the basic skills	1	2	3	4	5
2. Allowing students to pursue their own interests	1	2	3	4	5

Informal Processes and Norms

	Always	Usually	Fairly Often	Occasionally	Never
1. Staff members share new ideas with each other in a collaborative manner	1	2	3	4	5
2. At meetings there are splits or deadlocks between factions or subgroups	1	2	3	4	5
3. At this school faculty members can say what they really think and others will not hold it against them	1	2	3	4	5

Formal Structure

1. How explicit are the school-wide policies in the following areas?

	Explicit Policy	General Guidelines	Little or No Policies
a. Admitting new students	1	2	3
b. Student conduct	1	2	3

2. In the following areas, how are various groups or individuals involved in decision making?

	Would not be involved	May be consulted	Must be consulted	Must inform	Must approve
a. Hiring new personnel					
District Office	1	2	3	4	5
Principal	1	2	3	4	5
Teachers	1	2	3	4	5
Students	1	2	3	4	5
b. Choosing instructional material					
District Office	1	2	3	4	5

	Would not be involved	May be consulted	Must be consulted	Must inform	Must approve
b. Choosing instructional material (continued)					
Principal	1	2	3	4	5
Teachers	1	2	3	4	5
Students	1	2	3	4	5

The information from the questionnaire was summarized by the consultant and presented at the next staff meeting. The staff discussion focused on the question: What problems can be defined in each of the three organizational subsystems?

In the area of goals, the staff was surprised to see a high level of agreement. Only in the area of teaching basic skills and providing vocational training was there substantial disagreement. The problem was defined as: Goal disagreement among staff members exists in two specific areas.

In the informal processes and norms subsystem the staff was surprised to see that the school's climate was perceived as open and warm. They were not surprised to see that their approach to problem-solving was perceived as fragmented and inadequate, particularly in implementing and evaluating decisions. The problem was defined as: We need to follow through on decisions.

The structural subsystem produced the largest number of problem areas. The staff concluded:

1. The way our roles are defined, we overlap in some areas while other responsibilities are not being carried out.
2. We have no policies in important areas, which means we have to meet often (related to lack of follow through).
3. We do not agree on how various individuals are involved in decisions. Our authority relations are very unclear.

The discussion of school policies triggered a considerable amount of controversy. The principal and staff decided to analyze the problem further using a force-field analysis. This analysis yielded the following:

Worst State: No Policies	Ideal: More Explicit Policies
← Restraining Forces	Facilitating Forces →
We want freedom	We meet too much
We want power	We don't want to give authority to anyone
Each case has important individual characteristics	Our decisions are often arbitrary and unfair

Generating multiple solutions. Once the staff had defined problems, they met in individual subgroups to generate solutions. These were generally brainstorming sessions in which the staff tried to uncover every possible solution.

Forecasting consequences. The next staff meeting focused on selecting alternatives for solving the policy problem. Several different methods were used. For example, several different solutions were suggested for solving this problem. These included: (1) develop specific policies, (2) give the principal more authority, (3) develop general guidelines and meet frequently to add substance. Each of these solutions was put in a matrix and rated according to (1) Feasibility--Can we do this?, (2) Solvability--Will this solve the problem?, and (3) Desirability--How much will it cost? And how will it affect other subsystems?

	Feasibility	Solvability	Desirability
Solution 1			
Solution 2			
Solution 3			

Each staff member assigned each solution a ranking of 1-5. The solution with the highest score was selected. The staff decided to give the principal more authority in some areas and to develop policies in others so as to limit his overall influence on the school.

A similar process was followed for each of the other two structural areas and for the other two subsystems (goals and informal processes). A solution or strategy was developed. Each solution or change strategy was incorporated into an implementation plan. The staff then asked the global question: How will these changes affect the five subsystems? For example, one proposed solution to the goal disagreement problem was to survey the parents to find out what emphasis they would like to see assigned to the school goals. However, the staff felt that such a

survey might result in more parent activity and interference. And since the staff felt unready to deal with parents or the community until their internal problems were solved, they reformulated this solution.

Taking action. Once strategies were selected, an implementation plan was developed--resources were identified, specific responsibilities were assigned, and a timetable was established.

In accordance with the implementation plan the strategies were carried out. The staff met occasionally to see whether unanticipated results were occurring in any of the subsystems.

Evaluation. At the specified time, questionnaires were readministered and the staff met to see whether the strategies had solved the defined problems.

This case study illustrates one way that an organizational perspective can be integrated with a problem-solving approach to define and solve important educational problems. It also shows how specific organizational development techniques can be used at appropriate times to facilitate the process. This particular illustration, however, is only one way that an organizational perspective can be linked to administrative problem solving. Many other applications are possible.

V. THE ORGANIZATIONAL PERSPECTIVE AND THE SCHOOL ADMINISTRATOR'S ROLE

Throughout this monograph an emphasis is placed on the difficulties of administering, teaching, or otherwise participating in educational organizations in modern times. The sources of the difficulties and problems are both external and internal. Externally, schools are asked to do more, change to keep tempo with rapidly shifting social expectations, and reduce expenditures. As schools respond, new roles, relationships, processes, and approaches produce uncertainty, conflict, frustration, and exhaustion.

In facing the situation, what posture can administrators assume? There are currently two main models. The "powerless reactor" view emphasizes the futility of the situation. Educational problems, after all, are deeply and solidly imbedded in a complex social and cultural context. The best administrators can do against such overwhelming odds is to relax, develop coping strategies and take a more "playful" approach to administrative duties.

The contrasting view sees the administrator as a "heroic change agent." This view emphasizes the importance of personal charisma, leadership skills, and administrative initiative. Administrators are encouraged to work hard, inspire the followers, and indefatigably search for the magical solution that will make monumental problems disappear.

The heroic change agent view takes many forms. Alternatively, superintendents and principals are encouraged to be: (1) instructional leaders--concerned with curriculum and instructional development, (2) political agents--concerned with influencing and channeling community sentiment, (3) "climate" leaders--concerned with sociopsychological health of schools and districts, (4) goal setters--concerned with developing and clarifying symbolic direction, and (5) bureaucratic managers--concerned with the establishment and maintenance of a well-oiled, efficient, and productive system.

A role conception based on an organizational perspective falls between the "powerless reactor" and "heroic change agent" view of the administrator. This third view recognizes the overwhelming nature of educational problems and the need to resort occasionally to coping strategies and administrative playfulness. It also recognizes that many problems can be solved by inspired individual initiatives, charisma, and hard work. The administrator is not a puppet; nor is the administrator a puppeteer who pulls all the strings. In the third view the importance of a total systems response to problems is stressed, with administrators holding a primary responsibility for building the organization's capacity to respond.

This third view sees the administrator as an "organizational leader." The organizational leader is one important part of a complex system. The system consists of several subsystems, all of which must work together to produce specified outcomes. When there are strains among the subsystems or the parts get out of line, the system becomes unstable or ceases to function altogether. When the strains become too great, and are not released, the result can equal the sudden movement of the earth along a fault. The organizational leader works to keep the system aligned, to realign certain subsystems if others shift, or to cause shifts designed to produce new, and higher, levels of equilibrium. The task is never complete. Each realignment produces new tensions, so that the system is in a constant flux.

The organizational leader focuses attention on designing and maintaining the settings in which humans interact, rationally and irrationally, to produce specified and desired outcomes. The role is not passive. Nor does it place the administrator in the position of detached manipulator or grand organizational wizard. The role is active, human, political, and creative. It involves the administrator with all five organizational subsystems. The primary responsibility is to keep the subsystems aligned and working together. To do this, the organizational leader pulls any lever at his disposal: goals, instruction, informal processes, or the community. The most accessible lever, however, is the formal structure of the organization. The administrator creates roles and groups to carry out responsibilities, creates linkages among roles, activities, and groups, resolves conflict, makes decisions, develops procedures for solving problems, and devises processes for evaluating performance and results. In many of these settings and processes the administrator participates vigorously and is among other things a decision maker, evaluator, problem solver and planner. In other settings and processes, the administrator simply sees that the stage is set and lets others carry out the action.

To be an organizational leader an administrator needs a comprehensive organizational perspective and a wide repertoire of strategies for changing any part of the system. The purpose of this monograph has been to provide the perspective and to introduce a few of the strategies. The field of OD contains a wealth of others. Properly applied, we believe that such strategies have great potential for improving schools. We also believe that the role of organizational leader holds great promises and personal fulfillment for many administrators who are not willing to give up but can realize the limitations of what they as one individual can do to change others.

We have provided some initial concepts and guidelines for an alternative approach. The burden is now on administrators to put these ideas to the test. Hopefully, the ideas will stimulate the design of new organizational forms which facilitate, rather than impede, the efforts of well-intentioned administrators, teachers, aides, specialists,

volunteers, and students. Time is simply too precious to waste on efforts which go nowhere because people are working against, rather than with, one another. In the quest to do different things, the most creative action may be to do things differently.

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